

## **Variables Influencing Academic Staff Performance at Egyptian Universities**

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### **Abstract**

A well-produced performance will ensure that an organization runs smoothly. This study investigates the performance of academic personnel. The performance that will be produced is also very dependent on the leadership, ability to use technology and work environment and the work performance of the employees. So that the existence of those factors makes lecturers' performance better and more precise, will be able to make the organization better. This study aims to analyze the effect of different leadership styles, ability to use technology and work environment on lecturer performance with job satisfaction as mediation at universities in Egypt. The approach used in this research is quantitative. The population in this study were academic staff in different universities in Egypt, with a sample size of 360 respondents. The loading, cronbach's  $\alpha$ , rho-a and

AVE are used to examine the constructs. All Cronbach's alpha values are more than 0.7 and factor loading is more than 0.50. Correlation, regression analysis and structural equation modeling was employed to test research hypotheses. This study finds that transformational leadership style tends to motivate to work better which has a great impact on overall performance. In addition, it suggests that improving the work environment and work environment can significantly increase job satisfaction and performance outcomes at universities in Egypt.

**Keywords:** Transformational leadership, Transduction leadership, Academic staff performance, Job satisfaction, Ability to use technology, Work environment.

## Introduction

Academic staff members are the key resource in higher education institutions and play a vital role in achieving the institutions goals (Kızıltepe, 2020). The nature of academic work in Egyptian universities is likely to be traditional academy where the emphasized on disciplinary teaching and supervision of students' projects (Paul de Nooijer, 2004). Egypt increases spending on education and improves quality and access (Reimers and Amaechi, 2022). For instance, in 2022, the total expenditure for higher education sector is approximately 159.2 billion Egyptian bound. (Ali, 2012; Schneider, Ehrhart and Macey, 2013; Liu *et al.*, 2022).

Job performance is an important aspect in determining organizational performance. In an educational system, academic staff performance plays a strategic role and is the primary element determining student achievement and thus university performance (Latif *et al.*, 2013). According to a previous study, lecturers play an important role in the educational process (Latif *et al.*, 2013). Studying factors influencing academic staff performance in higher education institutions from various settings is extremely beneficial not only for enriching and refining theory, but also for producing acceptable recommendations to improve the quality of higher education (Latif *et al.*, 2013; Ceschi *et al.*, 2017).

Leadership has a significant impact on employees, so understanding how it works is critical. To accomplish so, we must first identify the sorts of leaders who lead organizations based on their strengths and weaknesses, then define the types of leaders that organizations require based on their competences (Nassir and Benoliel, 2023). Supervisors must be strong leaders for their organizations to succeed, and leadership may help them improve, but it can also have a significant impact in some circumstances (Angus-Leppan, Metcalf and Benn, 2010). Over the last few decades, various organizations have focused on the relationship between leadership style and work performance, and much research have been conducted on the subject. A leader's

position has become critical in gaining subordinates' trust and motivating them to complete their tasks successfully (Ali, 2012). This function is seen as a significant tool for employee productivity since the leader assists employees.

In addition, there have been many organizations that have implemented new technology to support their business process. So, in education industry, universities should implement new technology or latest technology to support teaching and learning process that can improve lecturer performance (Jalinus, 2022). Despite students' interest in multimedia and animation, some educators in Egypt still need to employ updated technology for teaching and learning, relying solely on presentation slides and internet browsing. Identifying lecturers' technology skills and recommending training on new technological tools may boost their performance (Karsen, Siswono and Widianty, 2015).

Furthermore, the association between work environment and satisfaction with employment is widely documented in the broader management literature. A supportive work environment with enough resources, a congenial culture, fair administrative practices, and opportunity for professional development has been demonstrated to considerably increase job satisfaction (HA, 2023). In higher education, the work environment includes things like access to instructional materials, research funding, administrative assistance, and collaborative ties with colleagues

(Riyanto, Endri and Herlisha, 2021). These components might vary greatly for private university instructors, depending on the institution's financial situation, organizational culture, and management procedures. Lecturers who perceive a favorable work environment have a greater likelihood to be content with their jobs, which can help them perform better. However, the role of job satisfaction as a mediating factor between work environment, competence, and lecturer performance has not been sufficiently explored (HA, 2023).

Conducting research related to the issue of motivation and academic staff performance in this context can assist in identifying factors contribute to the problem of low performance among the academic staff faced by the universities in Egypt. This study intends to examine the influence of motivation, leadership, ability to use technology and work environment on academic staff performance in the context of universities in Egypt.

## **Literature review**

In many organizations today, improving the performance of employees has become an important topic in the last few decades, that is why leadership has started playing a tremendous role in the performance of employees because effective leadership increases the productivity of employees, their

motivation, their job satisfaction, as well as their behaviors. Although it does not exist a “one” leadership style capable of fixing all leadership issues if we consider the various characteristics surrounding the leadership process, leaders, however, have the power to influence employees to achieve organizational goals.

### **Transactional Leadership**

Transactional leadership is based on the assumption that rewards and punishments motivate employees. Previous study revealed that transactional leadership works best in social systems with clear chains of authority. Because in this philosophy, employees' primary obligation is to do what their superiors instruct them to do (Dendi Zainuddin, Indra and Iwan Rizal, 2019). Transactional leadership can also be described as autocratic because leaders expect their subordinates to follow defined norms and orders from the leader. According to the previous study, the fundamental concept of transactional leadership will explain the process of subordinates' needs being met in exchange for the leader's function, as well as how the leader can only react if the subordinates fail to meet their role requirements. Transactional leadership is also defined as an activity that directs subordinates toward a specific objective by highlighting their roles and responsibilities (Young *et al.*, 2021). in addition, transactional leadership has three requirements:

conditional rewards, management by exception (passive), and management by exception (active) (Young *et al.*, 2021).

## **Transformational Leadership**

The concept of transformational leadership has begun to progressively change from the concept of instructional leadership, as a hope in the field of education for higher education leaders to attract visionary leadership types into the business (Sarinah *et al.*, 2024). Transformational leadership is one of the most prevalent concepts in the field of leadership, and it has been considered an essential topic related to leadership for many years ago. (Long *et al.*, 2014). This interest stems from the fact that transformational leadership promotes positive, superior relationships with subordinates, commitment, performance motivation, and effective leadership. (Masa'deh *et al.*, 2016). Transformational leadership is based on principles related to the subordinate development process. Transformational leaders evaluate all the abilities and potential of each subordinate to carry out their work, by looking at the possibility of expanding and empowering subordinates in the future (Bastari *et al.*, 2020). Transformational leaders are also known to be able to transform organizations by identifying identifying the need for change, initiating a vision, and mobilizing commitment to realize that vision (Manurung, 2020).

## **Academic staff performance**

Lecturer Performance Salbiyah et al. (2019) states that concerning the performance and responsibility of lecturers in carrying out their professional duties, the performance of lecturers is contained in Law Number 14 of 2005, namely: Carrying out the education, research and community service, planning, implementing the learning process, and assessing and evaluating learning outcomes; Continue to improve and develop academic qualifications and competencies; Acting in an objective and non- discriminatory manner based on considerations of the student's gender, religion, ethnicity, race, certain physical conditions, or socioeconomic background in learning; Upholding statutory regulations, law and code of ethics, as well as religious and ethical values; and maintaining and fostering national unity and integrity. According to an article published in the Bulletin (Directorate of Educators & Education, Directorate General of Higher Education, 2014), it is stated that lecturers who research the publication of scientific papers are one of the efforts to improve the performance of these lecturers. Performance is defined as the result of job completion which represents a person's level of achievement at each job and in fulfilling policies, expectations, or requirements for the official role of the organization (Wardani & Eliyana, 2020). Performance can also be interpreted as productivity which states the quality, quantity,



and contribution of work, when productivity is high, the overall performance in the organization will also be high.

### **Academic staff satisfaction**

Grenberg is quoted as saying (Anwar et al., 2017) that job satisfaction is a set of feelings that employees like or don't like related to their work. Or job satisfaction is expressed as the degree to which people feel positive or negative about their job. It is an emotional response to one's duties, as well as the physical and social conditions at work. Employees with a high level of job satisfaction show a positive attitude towards their work, and vice versa, employees who are not satisfied with their work will show negative attitudes towards their work (Syabarrudin et al., 2020). Anggarwati & Eliyana, (2015) also defines job satisfaction as a pleasant feeling as a result of the perception that work fulfills the important values of work. That way, this will give the meaning that job satisfaction is not a single concept, because a person can feel satisfied with one aspect of his job and may not be satisfied with one or various aspects of his job. Employee job satisfaction is very important to enable an employee to be able to bring out the maximum ability in his job (Setiawan et al., 2020).

### **Research questions**

The specific research questions are:

- To what extent the leadership skills could affect the academic staff performance in Egyptian universities?
- To what extent the ability to use technology affects the academic staff performance in Egyptian universities?
- To what extent the work environment affects the academic staff performance in Egyptian universities?
- To what extent the academic staff satisfaction affects the academic staff performance?

### Research hypotheses

The research hypotheses were formulated as the following:

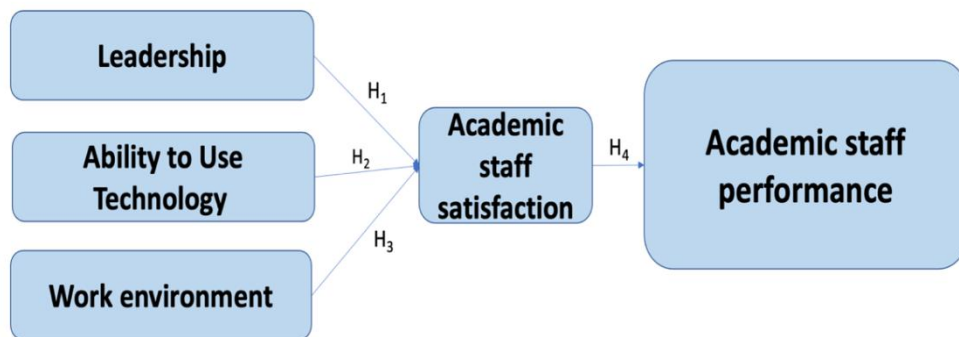
**H1.** The academic staff performance of the Egyptian universities is influenced by the staff leadership.

**H2.** The academic staff performance of the Egyptian universities is influenced by the ability to use technology.

**H3.** The academic staff performance of the Egyptian universities is influenced by work environment.

**H4.** Academic staff satisfaction affects the academic staff performance.

The conceptual framework for this study was developed based on previous researches and concepts that have mainly been discussed in the literature review as shown in **Figure 1**.



**Figure 1: Conceptual Framework**

## Methods

The formal survey was administered online through convenience sampling *via* WhatsApp from 20 March to 10 April 2024. In total, 360 an academic staff in different universities in Egypt.

As shown in **Table 1**, the 5 main indicators measured Academic staff job satisfaction (6 statements), Leadership ( 10 statements), Ability to use technology (4 statements), Work environment (6 statements) and Academic staff performance (6 statements). All statements used 5-point Likert scale (from 1 – strongly disagree to 5 – strongly agree).

Cronbach's Alpha reflects a good reliability of the research statements as its values range from 0.719 to 0.897 for main

indicators. Also, the value of composite reliability indicates the validity of the questionnaire.

Correlation, regression analysis and structural equation modeling was employed to test research hypotheses. In addition, t-test and ANOVA test were also conducted to investigate the different impact of demographic data on the job performance of the academic staff.

The results of the factor analysis show that all items are loaded in their constructs as suggested in the proposed model, as the loadings of all items are greater than 0.5. Also, AVE values indicate that the constructs could explain more than 50% of the statements which indicate high internal validity.

### **Reliability and Validity Analysis**

Running the factor analysis is of great importance for deductive research as it will sort out the most meaningful and valuable constructs stated within the utilized model in the study (Sekaran, 2003). The internal consistency coefficient (Cronbach's Alpha) reflects the reliability of a scale as it captures the proportion of total variance that is common to all items that form the scale, which presumably corresponds to the underlying construct being measured.

Cronbach's Alpha reflects a good reliability of the research statements as its values range from 0.645 to 0.838 for main

indicators. Also, the values of average item correlation indicate the validity of the questionnaire.

**Table 1: Loading, cronbach’s  $\alpha$ , rho-a and AVE of the variables**

Constructs	Number of Statements	Cronbach's Alpha	AVE	Item	Loading
Academic staff job satisfaction	6	0.705	64.9%	AS1	0.643
				AS2	0.693
				AS3	0.706
				AS4	0.867
				AS5	0.688
				AS6	0.767
Leadership	10	0.838	79.8%	LD1	0.687
				LD2	0.699
				LD3	0.814
				LD4	0.711
				LD5	0.77
				LD6	0.832
				LD7	0.691
				LD8	0.654
				LD9	0.740
				LD410	0.738
Ability to use technology	4	0.654	69.3%	AT1	0.659
				AT2	0.664
				AT3	0.819
				AT4	0.762
Work environment	6	0.723	74.7%	WE1	0.663
				WE2	0.645
				WE3	0.684
				WE4	0.734
				WE5	0.817
				WE6	0.637
Academic staff performance	5	0.645	70.1%	AP1	0.823
				AP2	0.779
				AP3	0.782
				AP4	0.736
				AP5	0.716

## Results

### Demographics Analysis

This part will tackle the research sample socio-demographic characters of the selected sample, the following table is an overview of the characteristics of the participants in terms of frequency and percentage as illustrated in **Table 2**.

**Table 2: description of demographic characteristics among survey participants**

Variable	Frequency	Percentage
<b>Gender</b>		
Male	172	45.7
Female	204	54.3
<b>Age</b>		
Under 30	99	26.3
30-39	185	49.2
40-49	44	11.7
≥ 50	48	12.8
<b>Experience</b>		
3-10	206	54.8
11-20	130	34.6
>20	40	10.6
<b>Academic degree</b>		
Bachelor's degree	92	24.5
Master's degree	93	24.7
Doctoral degree	191	50.8
<b>Academic title</b>		
Lecturer	99	26.3
Teaching Assistant	185	49.2
Associate professor	52	13.8
Professor	40	10.6
<b>University</b>		
Public	84	22.3
Private	292	77.7
<b>Faculty background</b>		
Engineering	55	14.6
Medical science	228	60.6
Business	74	19.7
Arts	19	5.1

## **Descriptive Statistics of Constructs and Statement Items**

In this section, the researcher provides detailed descriptive statistics and analyses for each item of the model's constructs. The descriptive analysis is comprised of the following: Minimum, Maximum, Mean, Standard Deviation, and Coefficient of Variation for each statement.

### **Leadership**

The survey was comprised of **10** statements to measure the leadership respondents tend on average to agree to the statements related to that construct as the mean values are between 1.73 and 2.51. The statement with the highest agreement is " My academic leader provides rewards and recognition based on my performance." while the one with the lowest agreement is " My academic leader communicates effectively and fosters open dialogue among faculty members. ". The homogeneous statement, with lower variance, is " My academic leader articulates a clear and inspiring vision for the department/school. " with COV equals 63.4% while the nonhomogeneous statement, with highest variance, is " My academic leader encourages innovation and supports new ideas in teaching and research. " with COV equals 70.6%.

**Table 3: Descriptive statistics of leadership**

Question	Sample Size	Minimum	Maximum	Mean	Standard Deviation	COV
<b>Leadership</b>	376	1	4.6	2.157	0.909	42.1%
My academic leader articulates a clear and inspiring vision for the department/school.	376	1	5	1.86	1.178	63.4%
My academic leader encourages innovation and supports new ideas in teaching and research.	376	1	5	2.45	1.731	70.6
My academic leader communicates effectively and fosters open dialogue among faculty members.	376	1	5	1.73	1.306	75.4%
My academic leader demonstrates a genuine interest in my professional development and growth.	376	1	5	2.24	1.451	64.9%
My academic leader motivates me to contribute beyond my job requirements for the benefit of our academic community."	376	1	5	2.05	1.369	66.9%
My academic leader clearly communicates goals and expectations for tasks and projects.	376	1	5	2.03	1.515	74.5%
My academic leader provides rewards and recognition based on my performance.	376	1	5	2.51	1.259	50.2%
My academic leader emphasizes the importance of meeting targets and deadlines.	376	1	5	2.04	1.362	66.8%



My academic leader ensures that resources and support are available to accomplish tasks effectively.	376	1	5	2.40	1.511	62.9%
My academic leader maintains consistency in procedures and policies."	376	1	5	2.27	1.494	65.9

### Ability to use technology

The survey was comprised of 4 statements to measure the leadership respondents tend on average to agree to the statements related to that construct as the mean values are between 2.14 and 2.56. The statement with the highest agreement is " I integrate technology into the administrative tasks and communication with students and colleagues." while the one with the lowest agreement is " I use online platforms and resources to enhance student learning. ". The homogeneous statement, with lower variance, is " I use online platforms and resources to enhance student learning. " with COV equals 75.8% while the nonhomogeneous statement, with highest variance, is " I integrate technology into the administrative tasks and communication with students and colleagues. " with COV equals 72.7%.

**Table 4: Descriptive statistics of ability to use technology**

Question	Sample Size	Minimum	Maximum	Mean	Standard Deviation	COV
<b>Ability to use technology</b>	376	1	5	2.34	1.21	51.9%
I use digital tools and software for teaching and research purposes (interactive application)	376	1	5	2.40	1.768	73.7%
I adapt to new technologies that are introduced in your academic field	376	1	5	2.25	1.666	74%
I integrate technology into the administrative tasks and communication with students and colleagues	376	1	5	2.56	1.864	72.7%
I use online platforms and resources to enhance student learning	376	1	5	2.14	1.621	75.8%

### Work environment

The survey was comprised of 6 statements to measure the leadership respondents tend on average to agree to the statements related to that construct as the mean values are between 1.99 and 2.77. The statement with the highest agreement is " Satisfaction with Current fixed working hours." while the one with the lowest agreement is " Satisfaction with physical working conditions ". The homogeneous statement, with lower variance, is " Satisfaction with the training opportunities in the Organization. " with COV equals 52% while the nonhomogeneous statement,

with highest variance, is " Satisfaction with Current fixed working hours. " With COV equals 59.1%.

**Table 5: Descriptive statistics of work environment**

Question	Sample Size	Minimum	Maximum	Mean	Standard Deviation	COV
<b>Work environment</b>	376	1	4.33	2.39	0.92	38.3%
Satisfaction with physical working conditions	376	1	5	1.99	1.24	62.1%
The hygiene maintenance in the Organization	376	1	5	2.75	1.45	52.7%
Satisfaction with Current fixed working hours	376	1	5	2.77	1.63	59.1%
Satisfaction with the training opportunities in the Organization	376	1	5	2.3	1.19	52%
Teamwork in the institution	376	1	5	2.34	1.58	67.8%
Access to equipment necessary for performing your tasks	376	1	5	2.22	1.34	60.4%

### Academic staff job satisfaction

The survey was comprised of 6 statements to measure the leadership respondents tend on average to agree to the statements related to that construct as the mean values are between 2.23 and 3.11. The statement with the highest agreement is " Engaged and motivated students can enhance job satisfaction." while the one with the lowest agreement is " I receive feedback on the results of my working activity

when I finish a certain task or a project. ". The homogeneous statement, with lower variance, is " I receive feedback on the results of my working activity when I finish a certain task or a project. " with COV equals 55.5% while the nonhomogeneous statement, with highest variance, is " Engaged and motivated students can enhance job satisfaction. " with COV equals 59.7%.

**Table 6: Descriptive statistics of academic staff job satisfaction**

Question	Sample Size	Minimum	Maximum	Mean	Standard Deviation	COV
<b>Academic staff job satisfaction</b>	376	1	5	2.59	0.95	36.7%
Health and safety working conditions are observed in your workspace.	376	1	5	2.68	1.368	51.1%
I receive feedback on the results of my working activity when I finish a certain task or a project	376	1	5	2.23	1.238	55.5%
I am satisfied with the hours for the beginning and end of the working day	376	1	5	2.74	1.655	60.3
I am satisfied with the distribution of work and rest within the working day.	376	1	5	2.38	1.473	62%
The university policies can support work-life balance through flexible work arrangements and manageable workloads.	376	1	5	2.43	1.306	53.8%
Engaged and motivated students can enhance job satisfaction	376	1	5	3.11	1.856	59.7%

### Academic staff performance

The survey was comprised of 5 statements to measure the leadership respondents tend on average to agree to the statements related to that construct as the mean values are between 2.03 and 3.16. The statement with the highest agreement is " I participate in holding a degree, as a thesis advisor, student advisor, tutorial/teaching, writing a textbook, module, or practical manual, developing learning media." while the one with the lowest agreement is " I conduct society training/illumination, as a member of university staff.". The homogeneous statement, with lower variance, is " I conduct society training/illumination, as a member of university staff. " with COV equals 51.3% while the nonhomogeneous statement, with highest variance, is " I publish an article/paper, translating/editing a book or patenting technological product. " with COV equals 67.8%.

**Table 7: Descriptive statistics of academic staff performance**

Question	Sample Size	Minimum	Maximum	Mean	Standard Deviation	COV
<b>Academic staff performance</b>	376	1	5	2.545	0.998	39.2%
I participate in holding a degree, as a thesis advisor, student advisor, tutorial/teaching, writing a textbook, module, or practical manual, developing learning media.	376	1	5	3.16	1.19	60.6%
I publish an article/paper, translating/editing a book or patenting technological product.	376	1	5	2.49	1.69	67.8%
I conduct society training/illumination, as a member of university staff.	376	1	5	2.03	1.04	51.3%
I participate in seminars, achievement award, representativeness of university in any event.	376	1	5	2.53	1.52	60%
The university use student evaluations to assess lecturers' teaching performance	376	1	5	2.51	1.47	58.4%

## Normality Test

The results of the two tests, shown in the following table, revealed that all study variables were not normally distributed because the significance value of those variables were below 0.05. However, since the valid collected sample is 376 responses hence, according to Sekaran (2003), a research study sample size which is above 30 to 50 participants is capable of running parametric tests especially in multivariate research.

**Table 8: Normality tests**

	Kolmogorov Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Independent Variables						
Leadership	0.124	376	.000	0.921	376	.000
Ability to use technology	0.205	376	.000	0.878	376	.000
Work environment	0.145	376	.000	0.925	376	.000
Mediator Variables						
Academic staff job satisfaction	0.140	376	.000	0.929	376	.000
Dependent Variable						
Academic staff performance	0.115	376	.000	0.936	376	.000

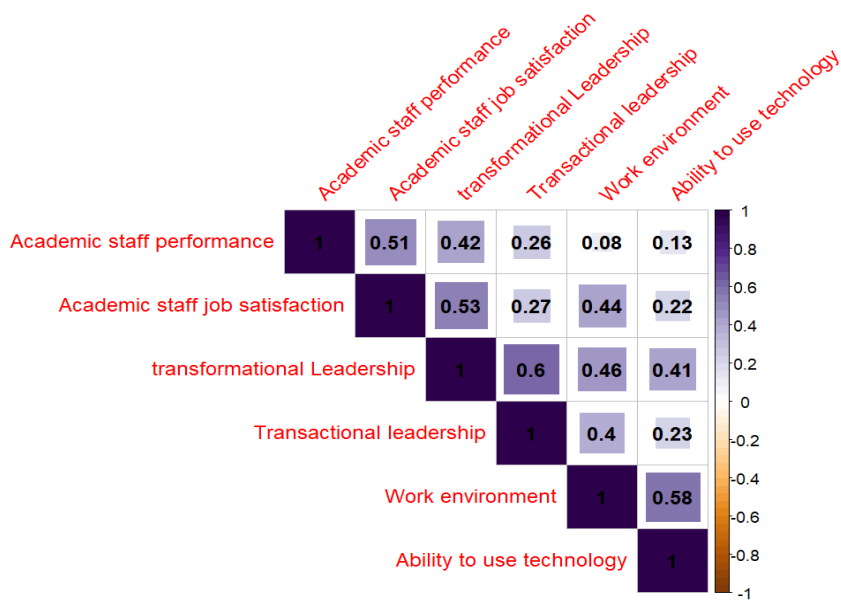
## Correlation Test

The following **Figure 2** illustrates the values of Pearson's Correlation Coefficient for the constructs, and from these values

we can conclude that there is a significant positive moderate relationship between academic staff job satisfaction and Academic staff performance, as the significance value is less than 0.05. Also, there is a significant positive moderate relationship between academic staff job satisfaction and leadership, as the significance value is less than 0.05. in addition, there is a significant positive moderate relationship between Academic staff job satisfaction and work environment, as the significance value is less than 0.05.

However, there is a significant positive weak relationship between academic staff job satisfaction and ability to use technology, as the significance value is less than 0.05. There is a significant positive weak relationship between leadership and Ability to use technology as the significance value is less than 0.05.

There is a significant positive moderate relationship between leadership and Work environment as the significance value is less than 0.05. And there is a significant positive moderate relationship between Ability to use technology and Work environment, as the significance value is less than 0.05. besides There is a significant positive weak relationship between academic staff performance and Ability to use technology, as the significance value is less than 0.05. There is a significant positive weak relationship between academic staff performance and leadership, as the significance value is less than 0.05.



**Figure 2: Pearson's Correlation Coefficients**

**Answering Hypotheses**

The following model will be estimated; these models are testing the theoretical model with the presence of mediator.



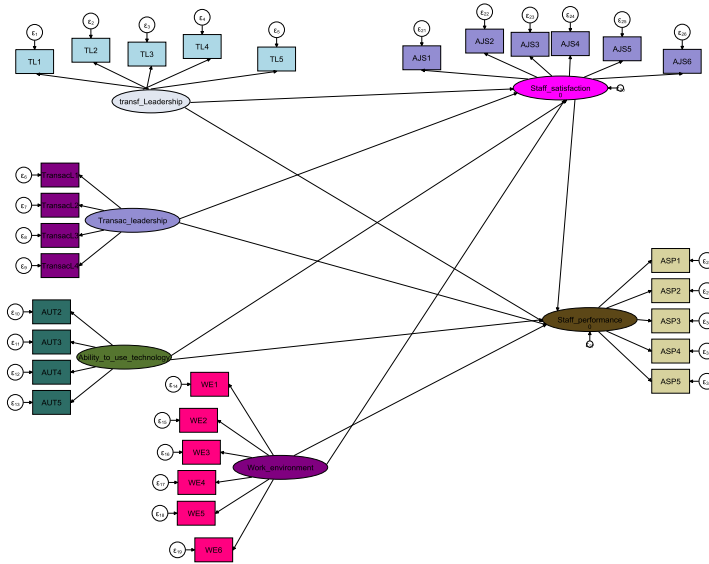


Figure 3 : path diagram for the theoretical model

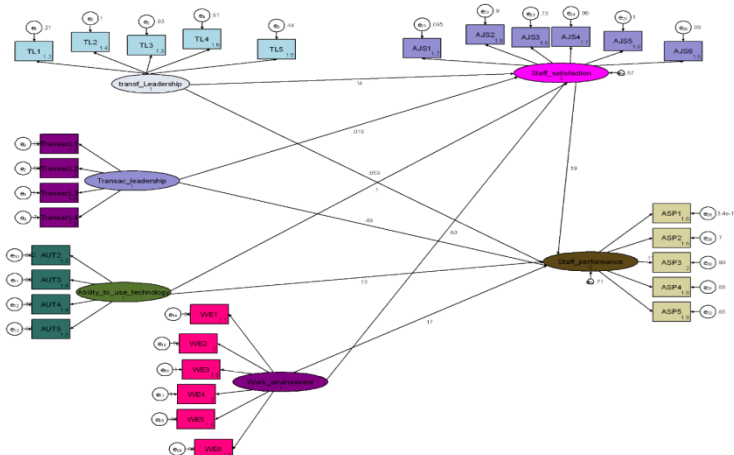


Figure 4 :Estimated path diagram for theoretical model

## Direct effect

The following table shows the estimates of the above model which can be interpreted as follows:

- Transformational Leadership has a significant direct positive impact on staff satisfaction, and this impact equals 0.1376 with confident 95%.
- Transactional Leadership has a significant direct positive impact on staff satisfaction, and this impact equals 0.0194 with confident 95%.
- The ability to use technology has a significant direct positive impact on staff satisfaction, and this impact equals 0.105 with confident 95%.
- The work environment has a significant direct positive impact on staff satisfaction, and this impact equals 0.631 with confident 95%.
- Staff satisfaction has a significant direct positive impact on staff performance, and this impact equals 0.491 with confident 95%.
- Transactional Leadership has a significant direct positive impact on staff performance, and this impact equals 0.491 with confident 95%.
- Transformational Leadership has no significant direct impact on staff performance, with confident 95%.

- The ability to use technology has a significant direct positive impact on staff performance, and this impact equals 0.135 with confident 95%.
- The work environment has a significant direct positive impact on staff performance, and this impact equals 0.169 with confident 95%.

**Table 9: Regression weights**

	Coefficient	Std. err.	z	P>z
<b>Staff satisfaction</b>				
Transformational leadership	0.137587	0.005606	24.54	0.000
Transactional leadership	0.0193637	0.005577	3.47	0.001
Ability to use technology	0.1045918	0.005558	18.82	0.000
Work environment	0.6312134	0.007249	87.08	0.000
<b>Staff performance</b>				
Staff satisfaction	0.1948211	0.013462	14.472	0.0000
Transformational leadership	0.059147	0.0391	1.5127	0.1256
Transactional leadership	0.4910932	0.03245	15.134	0.0000
Ability to use technology	0.1346339	0.0089	15.127	0.0000
Work environment	0.1687933	0.01115	15.138	0.0000

**Indirect effect**

The following table illustrates all the indirect paths and from it we can conclude that:

- Staff satisfaction mediates the relationship between staff performance and transformational leadership while this with confident 95%, and the indirect effect = 0.039.

- Staff satisfaction mediates the relationship between staff performance and transactional leadership while this with confident 95%, and the indirect effect = 0.005.
- Staff satisfaction mediates the relationship between staff performance and Ability to use technology while this with confident 95%, and the indirect effect = 0.0228.
- Staff satisfaction mediates the relationship between staff performance and work environment while this with confident 95%, and the indirect effect = 0.168.

**Table 10: indirect effects**

AJP				
	Coefficient	Std. err.	z	P>z
Transformational Leadership	0.03912	0.001569	24.93	0.000
Transactional leadership	0.00503	0.001447	3.48	0.001
Ability to use technology	0.02281	0.001235	18.48	0.000
Work environment	0.16834	0.0018	93.5	0.000

The overall model fit was assessed using a number of measures. The following table shows that the Chi-square value of ٢١٢٤.٣٥٥ with ٤٣٥ degrees of freedom is statistically significant at 0.05 level which indicates that the model is not good fit, however Chi-Square test is very sensitive to the sample size. The results further exhibit that all fit indices obtained are satisfactory and within the suggested boundaries. Accordingly, the results confirm an acceptable fit of the proposed model.

**Table 11: goodness of fit indices**

Indices	Abbreviation	Recommended Criteria	Results	conclusion
Chi-Square	$\chi^2$	P-value > 0.05	٢١٢٤,٣٥٥	Not Good Fit
Degree of Freedom			٤٣٥	
Level of Significance			0.000	
Normed Chi-Square	$\frac{\chi^2}{DF}$	$1 < \frac{\chi^2}{DF} < 5$	٤.88	Good Fit
RMSEA	Root Mean Square Error of Approximation	< 0.05 Good Fit < 0.08 Acceptable Fit	0.025	Good Fit
NFI	Normed Fit Index	> 0.90	0.999	Good Fit
RFI	Relative Fit index	> 0.90	0.998	Good Fit
IFI	Incremental Fit Index	> 0.90	0.971	Good Fit
TLI	Tucker-Lewis Index	> 0.90	0.969	Good Fit
CFI	Comparative Fit Index	> 0.90	0.998	Good Fit

## Discussion

In this study, it shows the results of the analysis that the transactional leadership variable has a significant effect on lecturer performance. Thus, it can be stated that transactional leadership at universities in Egypt was able to influence the performance of lecturers. This is also supported by research according to Noor Azizah et al., (2020) that transactional leadership has a significant effect on lecturer performance. The results of this study will show that transactional leadership at the has a strong desire to encourage the performance of the lecturers

and enable them to meet agreed goals. So that academic staff will get their performance and responsibilities in carrying out their professional duties assisted by the influence of transactional leaders. The academic staff through the influence of transactional leadership will be required to accept, approve, and obey leaders in exchange for praise, rewards, and resources, or avoid punishment. Transformational Leadership on Lecturer Performance.

Additionally, it shows the results of the analysis after being processed using partial least square that transformational leadership variables have a significant effect on lecturer performance. Thus, it can be stated that transformational leadership at universities in Egypt was able to influence the performance of lecturers. This is also supported by research according previous study that transformational leadership will be able to bring higher performance (Dendi Zainuddin, Indra and Iwan Rizal, 2019). The results of this study will show that transformational leadership is a leadership model that reflects a leader who tends to motivate to work better and focus on behavior to help transformation between individuals and organizations. So that the transformational leadership in a concept is expected to increase the achievement performance of academic staff in the Egyptian university.

## Conclusion and Recommendation

This study demonstrates that job satisfaction is a critical mediator of academic staff performance, influenced by various factors such as the leadership style (transformational and transactional leadership), ability to use the technology and work Environment. For universities, these findings highlight the need for a comprehensive approach to improving lecturer satisfaction and performance. Institutional policies should prioritize creating a positive work environment, providing opportunities for advancement and recognition, supporting autonomy, and assuring clear communication. By addressing these variables, universities can not only improve job happiness but also strengthen the overall performance of their instructors, resulting in improved academic outcomes and a stronger institutional reputation

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